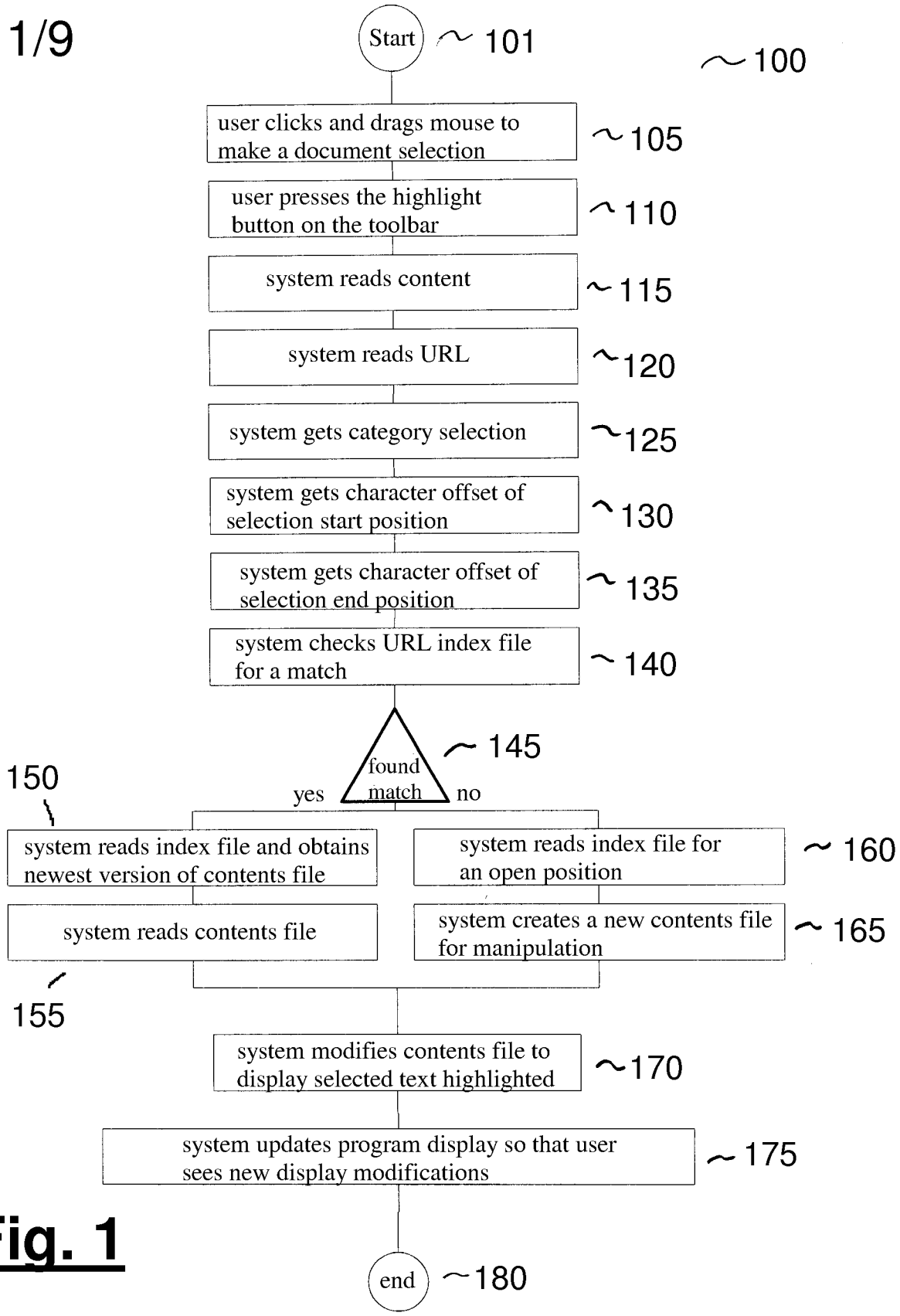
Start
101
100
user clicks and drags mouse to make a document selection
105
user presses the highlight button on the toolbar
110
system reads content
115
system reads URL
120
system gets category selection
125
system gets character offset of selection start position
130
system gets character offset of selection end position
135
system checks URL index file for a match
140
found match
145
yes
no
150
system reads index file and obtains newest version of contents file
system reads index file for an open position
160
system reads contents file
system creates a new contents file for manipulation
165
155
system modifies contents file to display selected text highlighted
170
system updates program display so that user sees new display modifications
175
end
180

Fig. 1

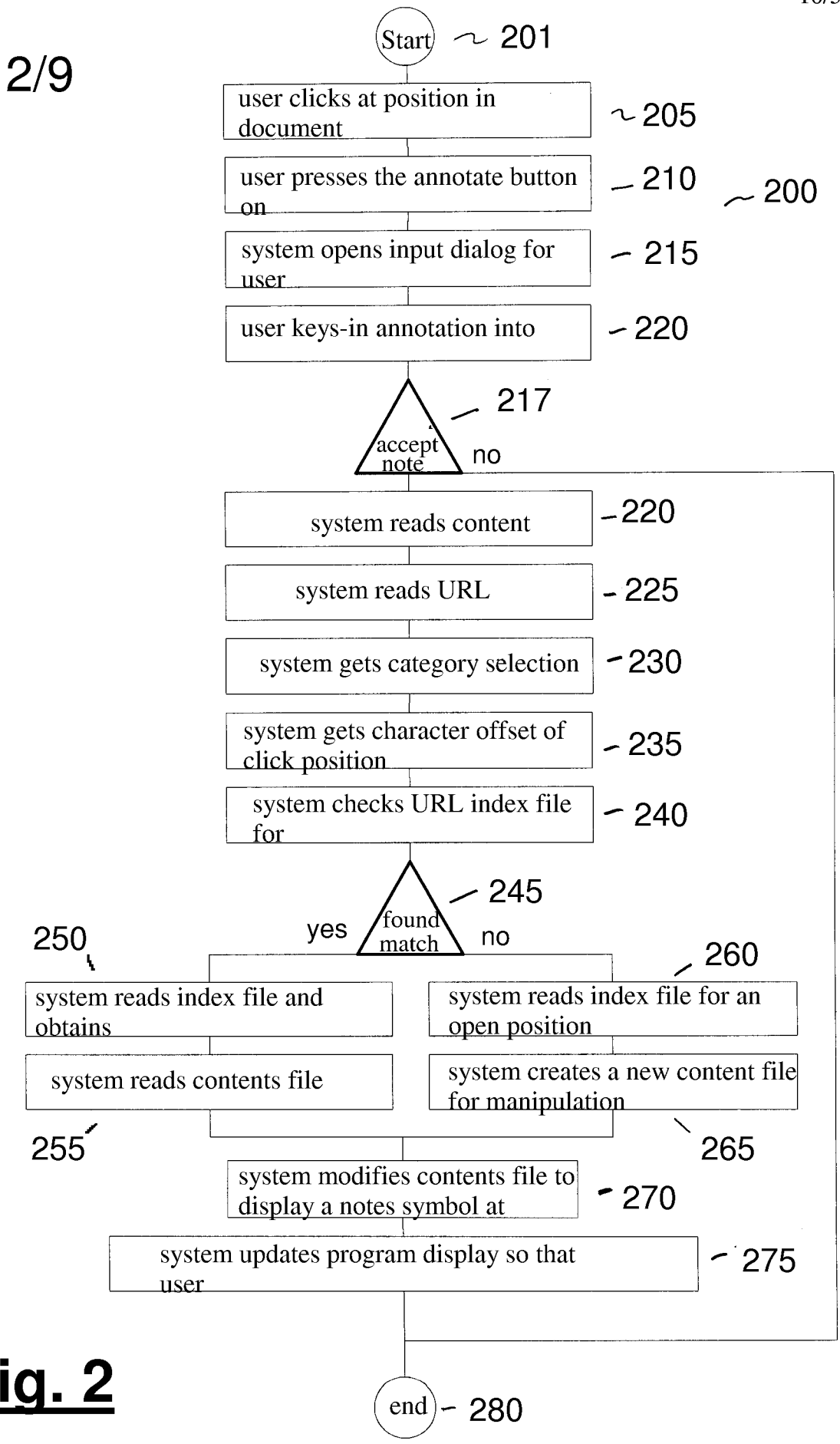
Start
201
user clicks at position in document
205
user presses the annotate button on
210
200
system opens input dialog for user
215
user keys-in annotation into
220
217
accept note
no
system reads content
220
system reads URL
225
system gets category selection
230
system gets character offset of click position
235
system checks URL index file for
240
245
found match
yes
no
250
260
system reads index file and obtains
system reads index file for an open position
system reads contents file
system creates a new content file for manipulation
255
265
system modifies contents file to display a notes symbol at
270
system updates program display so that user
275
end
280

Fig. 2

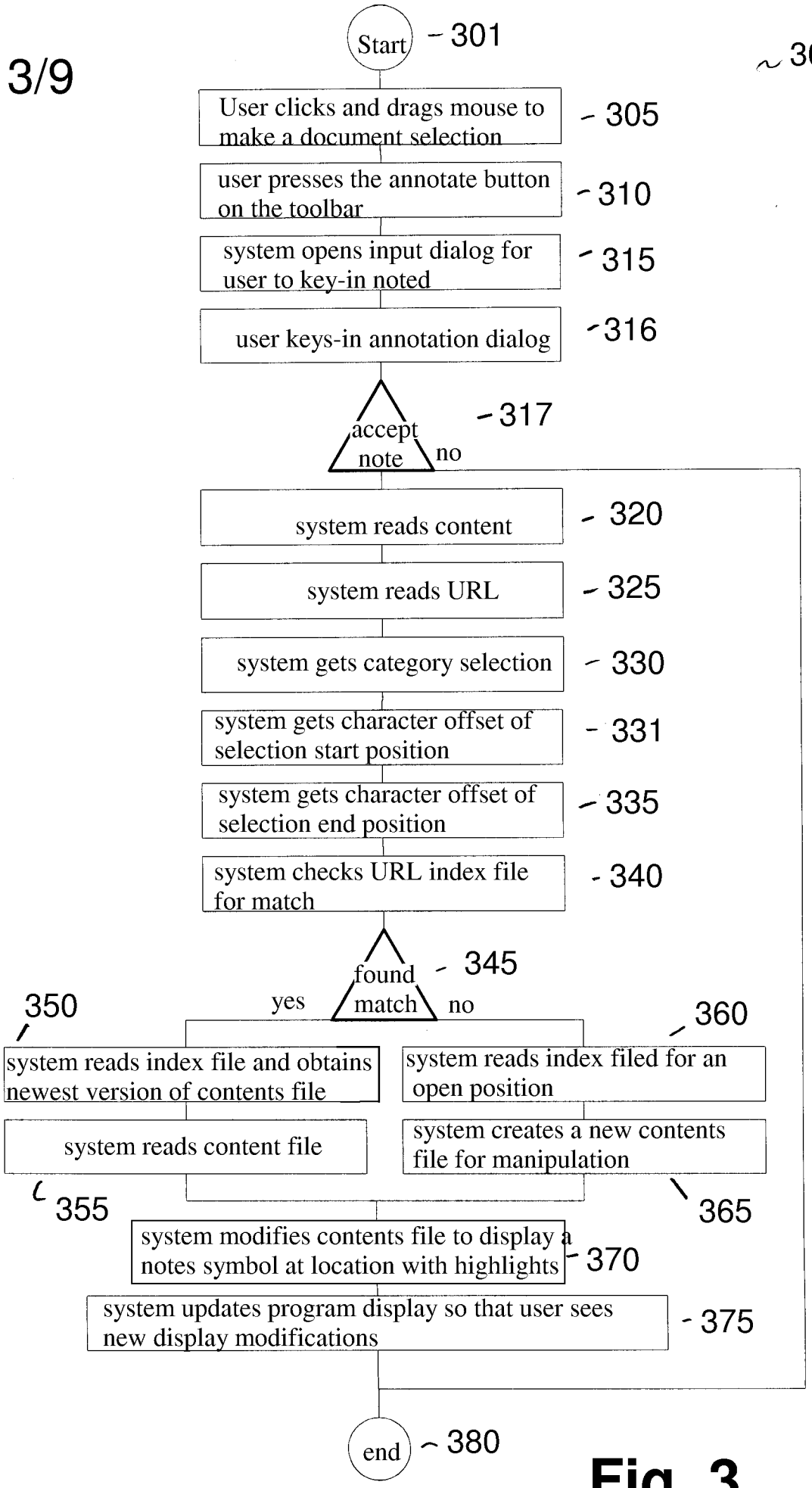
Start
301
300
User clicks and drags mouse to make a document selection
305
user presses the annotate button on the toolbar
310
system opens input dialog for user to key-in noted
315
user keys-in annotation dialog
316
accept note
317
no
system reads content
320
system reads URL
325
system gets category selection
330
system gets character offset of selection start position
331
system gets character offset of selection end position
335
system checks URL index file for match
340
found match
345
yes
no
350
360
system reads index file and obtains newest version of contents file
system reads index filed for an open position
system reads content file
system creates a new contents file for manipulation
355
365
system modifies contents file to display a notes symbol at location with highlights
370
system updates program display so that user sees new display modifications
375
end
380

Fig. 3

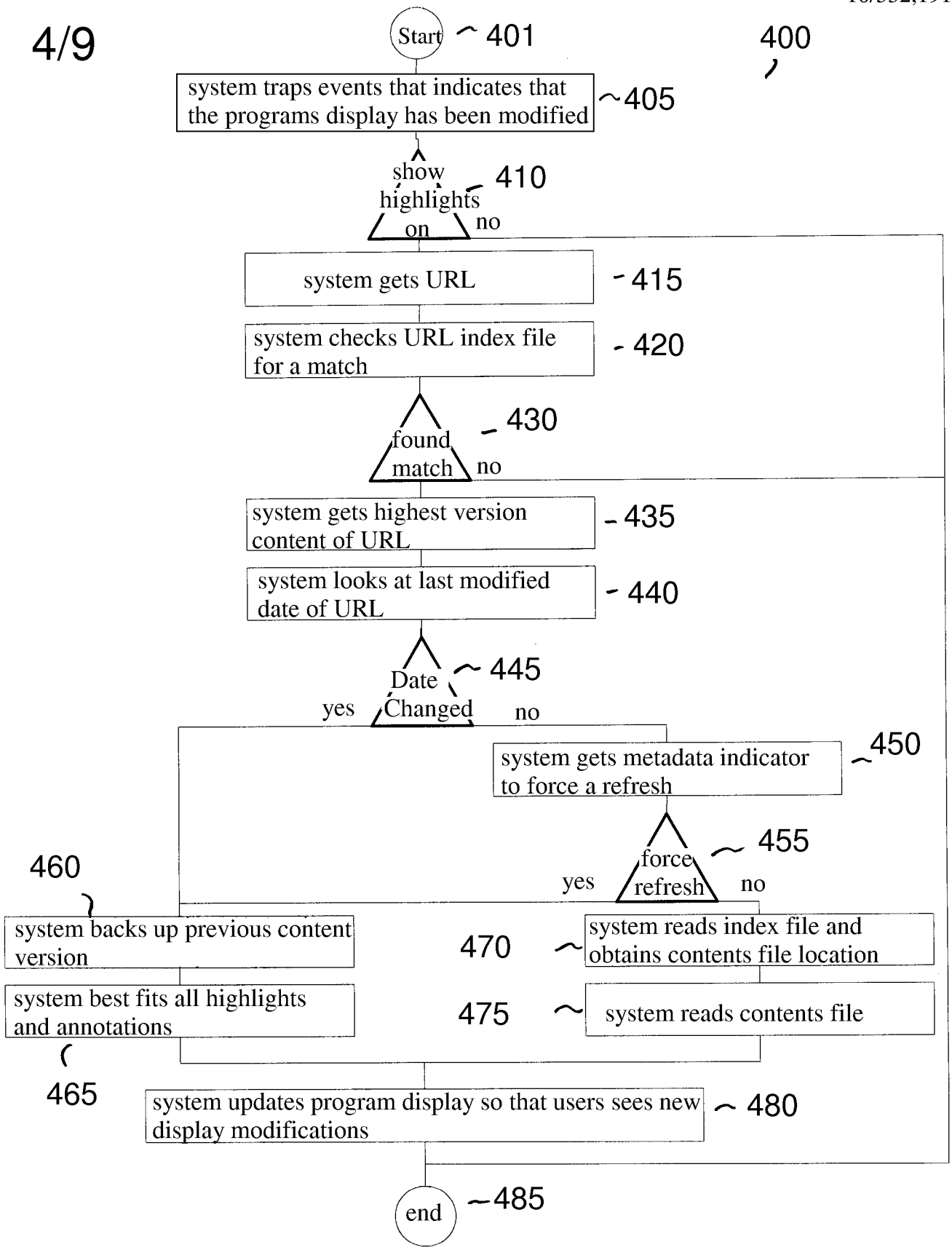
Start
401
400
system traps events that indicates that the programs display has been modified
405
show highlights on
410
no
system gets URL
415
system checks URL index file for a match
420
found match
430
no
system gets highest version content of URL
435
system looks at last modified date of URL
440
Date Changed
445
yes
no
system gets metadata indicator to force a refresh
450
force refresh
455
yes
no
460
system backs up previous content version
470
system reads index file and obtains contents file location
system best fits all highlights and annotations
475
system reads contents file
465
system updates program display so that users sees new display modifications
480
end
485

Fig. 4

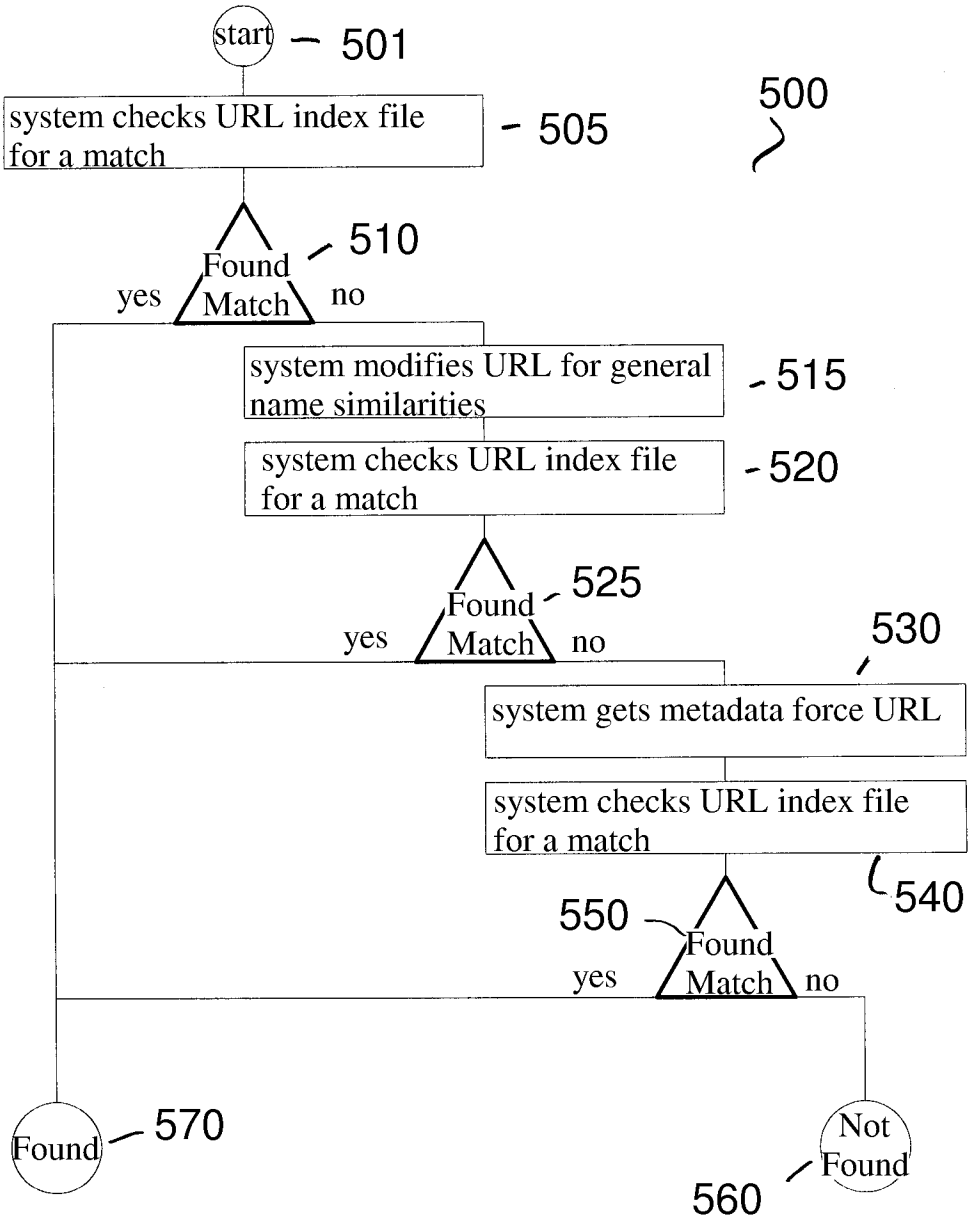
start
501
system checks URL index file for a match
505
500
Found Match
510
yes
no
system modifies URL for general name similarities
515
system checks URL index file for a match
520
Found Match
525
yes
no
530
system gets metadata force URL
system checks URL index file for a match
540
550
Found Match
yes
no
Found
570
Not Found
560

Fig. 5

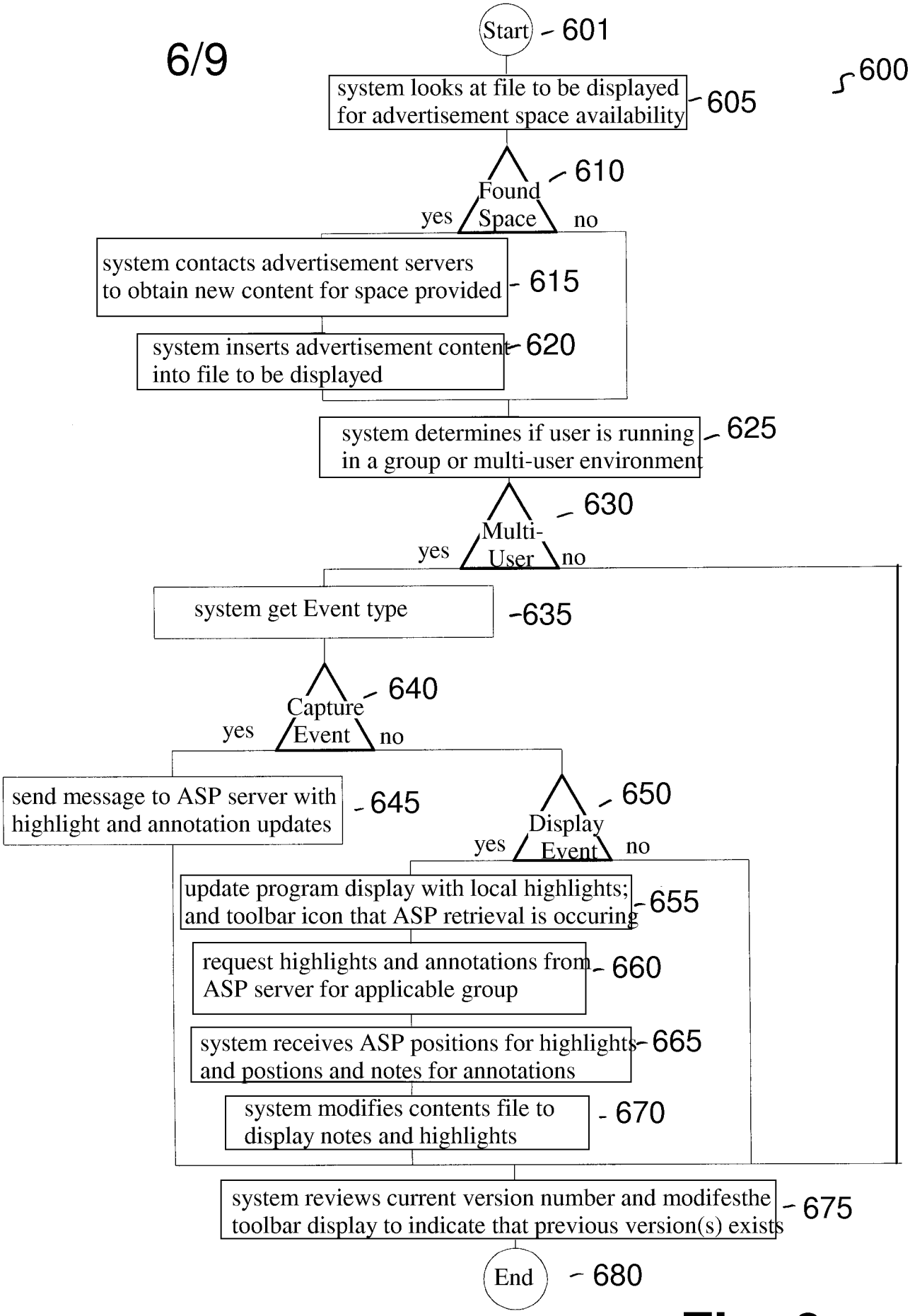
Start
601
600
system looks at file to be displayed for advertisement space availability
605
Found Space
610
yes
no
system contacts advertisement servers to obtain new content for space provided
615
system inserts advertisement content into file to be displayed
620
system determines if user is running in a group or multi-user environment
625
Multi-User
630
yes
no
system get Event type
635
Capture Event
640
yes
no
send message to ASP server with highlight and annotation updates
645
Display Event
650
yes
no
update program display with local highlights; and toolbar icon that ASP retrieval is occuring
655
request highlights and annotations from ASP server for applicable group
660
system receives ASP positions for highlights and postions and notes for annotations
665
system modifies contents file to display notes and highlights
670
system reviews current version number and modifesthe toolbar display to indicate that previous version(s) exists
675
End
680

Fig. 6

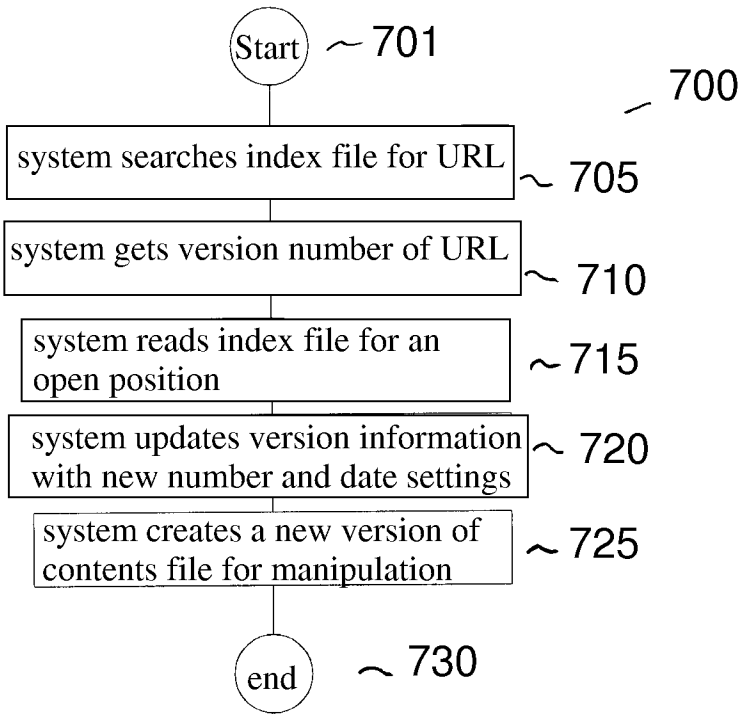
Start
701
700
system searches index file for URL
705
system gets version number of URL
710
system reads index file for an open position
715
system updates version information with new number and date settings
720
system creates a new version of contents file for manipulation
725
end
730

Fig. 7

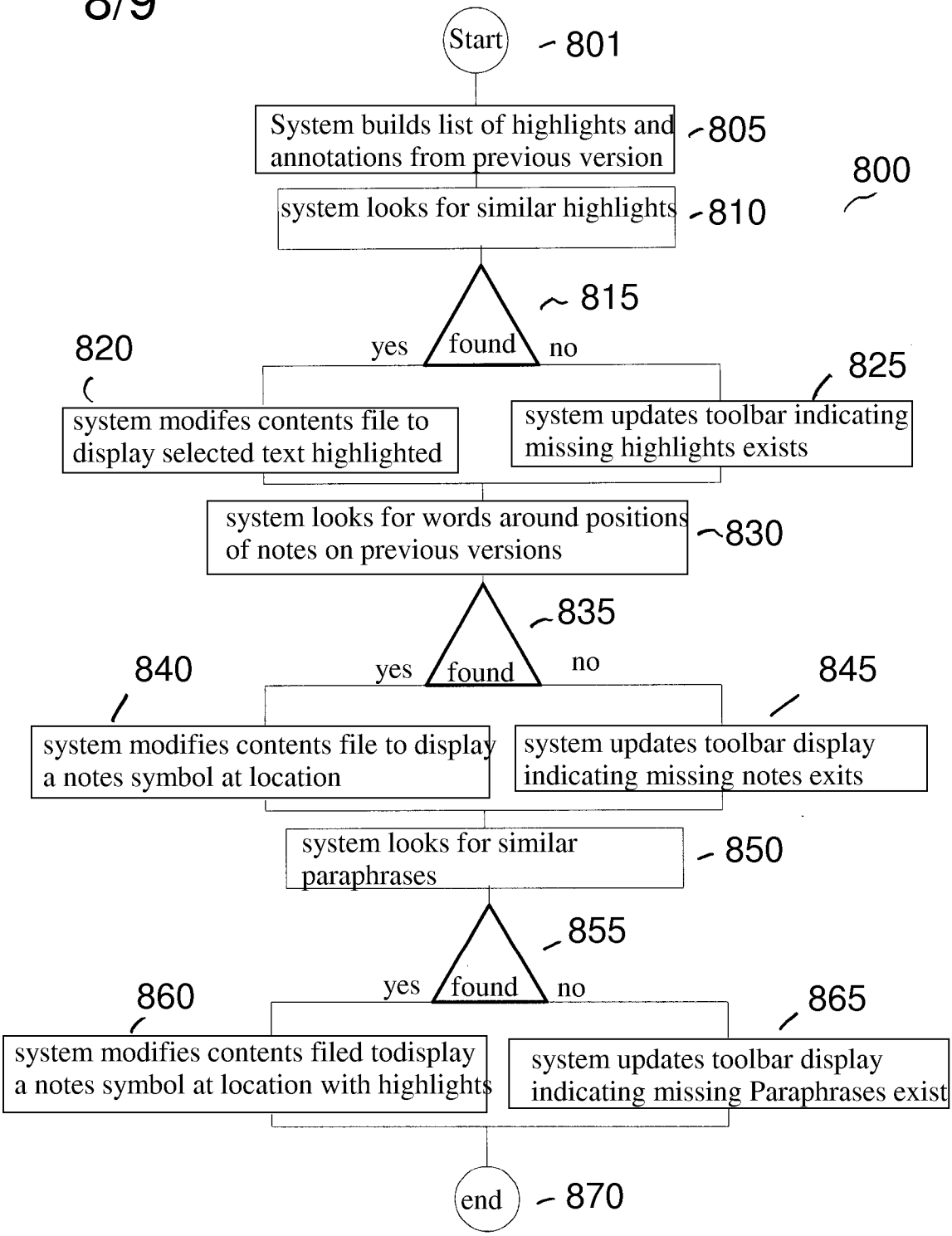
Start
801
System builds list of highlights and annotations from previous version
805
800
system looks for similar highlights
810
815
found
yes
no
820
825
system modifes contents file to display selected text highlighted
system updates toolbar indicating missing highlights exists
system looks for words around positions of notes on previous versions
830
835
found
yes
no
840
845
system modifies contents file to display a notes symbol at location
system updates toolbar display indicating missing notes exits
system looks for similar paraphrases
850
855
found
yes
no
860
865
system modifies contents filed todisplay a notes symbol at location with highlights
system updates toolbar display indicating missing Paraphrases exist
end
870

Fig. 8

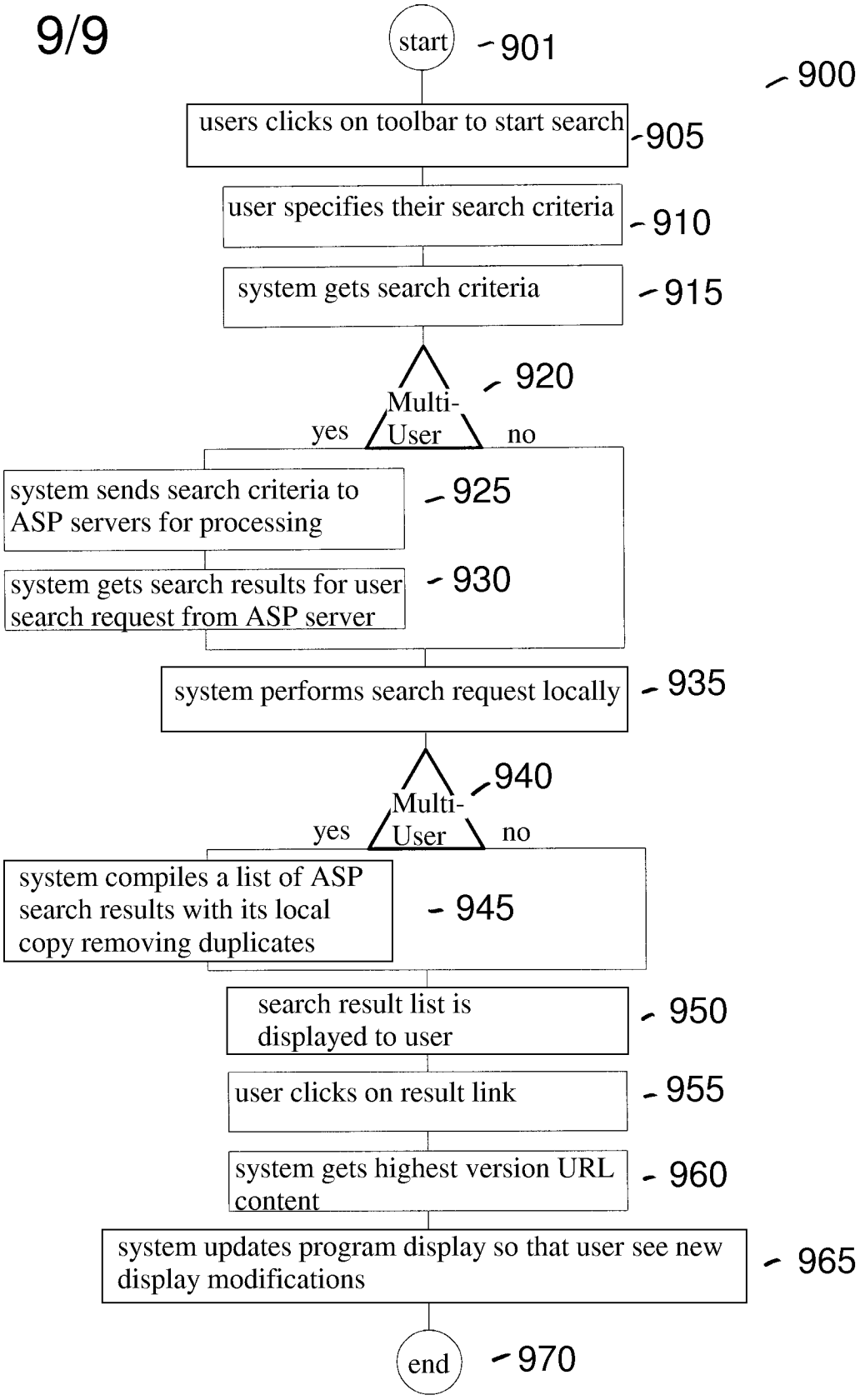
start
901
900
users clicks on toolbar to start search
905
user specifies their search criteria
910
system gets search criteria
915
Multi-User
920
yes
no
system sends search criteria to ASP servers for processing
925
system gets search results for user search request from ASP server
930
system performs search request locally
935
Multi-User
940
yes
no
system compiles a list of ASP search results with its local copy removing duplicates
945
search result list is displayed to user
950
user clicks on result link
955
system gets highest version URL content
960
system updates program display so that user see new display modifications
965
end
970

Fig. 9